EXHIBIT 159

PUBLIC

IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA ALEXANDRIA DIVISION

United States of America, et al.,

Plaintiffs,

V

Case No. 1:23-cv-00108 HON. LEONIE H. M. BRINKEMA

Google LLC,

Defendant.

EXPERT REPORT OF **TIMOTHY SIMCOE, PH.D.**

DECEMBER 22, 2023

- substantial and sustained market power within that market.¹⁰¹ Here, again, I briefly summarize several key points from his analysis.
- 70. Ad exchanges provide a distinctive set of features and services that benefit both publishers and advertisers. These product characteristics include tools for detecting and filtering spam, malware and fraud; tools for data collection and privacy management; and a billing and payments infrastructure. The most important functionality of an ad exchange, however, is to facilitate RTB auctions that match publisher inventory to advertiser demand. For this reason, the indirect network effects created by amassing a large pool of buyers and sellers are an important source of differentiation among ad exchanges.
- 71. In general, buyers and sellers of open web display ads that use ad exchanges to participate in RTB auctions might consider three alternative approaches: (i) direct deals, (ii) publisher ad servers, or (iii) DSPs. ¹⁰⁴ None of these options, however, is an effective substitute for ad exchanges. ¹⁰⁵
 - a. As described above, publishers typically cannot sell all of their inventory through the direct channel, and rely on indirect sales to monetize their remnant impressions. ¹⁰⁶ Within the indirect channel, ad exchanges provide an effective means of reaching a large and diverse pool of potential sellers or buyers.

¹⁰¹ See Lee Report, Sections IV.D. and V.C.

See Lee Report, Section II.B.3.; see also, Deposition of Scott Sheffer (Google), July 20, 2021, 266:19–267:23 ("My question is, why couldn't publishers get identical marketing demand and yield on other exchanges as they did on AdX? A. Okay. So there's a couple of potential reasons why that might be the case. So I think the first and foremost one would be that Google's anti-spam, anti-fraud and call lead efforts are such that we actually turn down or stopped from showing a lot of ads that other exchanges might show. The net effect of that on a partner would be hard - hard to estimate. But, you know, we do - we do a lot of anti-fraud, anti-spam efforts which results in a lot of - a lot of demand that is forgone. And so I think other - my understanding in talking to publishers is that other exchanges and other demand forces aren't as clean or as particular about that kind of stuff as Google is. So that's one big difference where the remarketing demand and yield would not be identical between AdX and other - other exchanges, because we just don't accept everyone in - or every ad in, I should say, based on quality of ads and things like that.")

¹⁰³ See Lee Report, Section II.B.3.

See Lee Report, Section IV.D.1.

¹⁰⁵ See Lee Report, Section IV.D.1.

See Lee Report, Section II.A.4.